

CLAIMS

1. An uninterruptible power supply for providing AC power to a load, the uninterruptible power supply comprising:

an input to receive AC power from an AC power source;

an output that provides AC power;

an inverter to receive DC power and to provide AC power;

a first connector electrically coupled to the inverter;

an energy storage device that provides the DC power, the energy storage device

including:

a plurality of terminals;

a plurality of lead wires, each lead wire having a first end connected to one of the terminals of the energy storage device;

a second connector adapted to connect to the first connector of the inverter, each lead wire having a second end connected to the second connector;

an energy storage device cap attached to the energy storage device and covering the terminals and the first end of each of the lead wires; and

a transfer switch constructed and arranged to select one of the AC power source and the energy storage device as an output power source for the uninterruptible power supply.

2. The uninterruptible power supply as in claim 1, wherein a portion of the energy storage device cap is configured to provide strain relief to the lead wires.

3. The uninterruptible power supply as in claim 2, wherein the strain relief portion of the energy storage device cap is a plurality of posts in which a lead wire can be weaved.
4. The uninterruptible power supply as in claim 1, wherein the energy storage device cap is made of an insulating material.
5. The uninterruptible power supply as in claim 1, wherein the energy storage device cap provides impact protection to the terminals of the energy storage device.
6. The uninterruptible power supply as in claim 1, wherein the first and second connector are constructed to mate without a use of a tool.
7. The uninterruptible power supply as in claim 1, further comprising:
an insulating tube formed around the plurality of lead wires of the energy storage device.
8. The uninterruptible power supply as in claim 1, further comprising:
a shrink wrap material that, when heated, attaches the energy storage device cap to the energy storage device.
9. An uninterruptible power supply for providing AC power to a load, the uninterruptible power supply comprising:
an input to receive AC power from an AC power source;
an output that provides AC power;
an inverter to receive DC power and to provide AC power;

a first connector electrically coupled to the inverter;

an energy storage device that provides the DC power and having a second connector to connect to the first connector of the inverter, the energy storage device having a plurality of terminals and a plurality of leads wires, a first end of each of the lead wires connected to one of the terminals;

means for covering the terminals and the first end of each of the lead wires; and

a transfer switch constructed and arranged to select one of the AC power source and the energy storage device as an output power source for the uninterruptible power supply.

10. The uninterruptible power supply as in claim 9, further comprising:

means for attaching covering means to the energy storage device.

11. A method of constructing an uninterruptible power supply for providing AC power to a load, the uninterruptible power supply, the method comprising:

providing an input to receive AC power from an AC power source;

providing an output that provides AC power;

providing an inverter having to receive DC power and to provide AC power;

providing a first connector to the inverter;

providing an energy storage device that provides the DC power, wherein the energy storage device is formed by

providing a plurality of terminals;

attaching a first end of each lead wire in a plurality of lead wires to one of the terminals of the energy storage device;

providing a second connector adapted to connect to the first connector of the inverter;

connecting a second end of each lead wire of the plurality of lead wires to the second connector;

attaching an energy storage device cap to the energy storage device, the cap covering the terminals and the first end of each of the lead wires; and

providing a transfer switch constructed and arranged to select one of the AC power source and the energy storage device as an output power source for the uninterruptible power supply.

12. The method as in claim 11, further comprising:
forming in a portion of the energy storage device cap a strain relief for the lead wires.
13. The method as in claim 11, further comprising:
using an insulating material to form the energy storage device cap.
14. The method as in claim 11, further comprising:
mating the first and second connectors without a use of a tool.
15. The method as in claim 11, further comprising:
forming an insulating tube around the plurality of lead wires of the energy storage device.

16. The method as in claim 11, further comprising:

using a shrink wrap to attach the energy storage device cap to the energy storage device.

11. The method as in claim 10, further comprising:
using a shrink wrap to attach the energy storage device cap to the energy storage device.